

Title (en)

METHOD FOR DETERMINING TRAJECTORIES OF MOVING PHYSICAL OBJECTS IN A SPACE ON THE BASIS OF SENSOR DATA OF A PLURALITY OF SENSORS

Title (de)

VERFAHREN ZUR BESTIMMUNG VON TRAJEKTORIEN BEWEGLICHER PHYSISCHER OBJEKTE IN EINEM RAUM, AUF DER BASIS VON SENSORDATEN MEHRERER SENSOREN

Title (fr)

PROCÉDÉ PERMETTANT DE DÉTERMINER LA TRAJECTOIRE D'OBJETS PHYSIQUES MOBILES DANS UN ESPACE, SUR LA BASE DES DONNÉES DE DÉTECTION DE PLUSIEURS CAPTEURS

Publication

EP 3017319 B1 20210825 (DE)

Application

EP 14739343 A 20140701

Priority

- CH 12022013 A 20130704
- CH 2014000091 W 20140701

Abstract (en)

[origin: WO2015000089A1] The invention relates to a method for determining trajectories of moving physical objects in a space on the basis of sensor data of a plurality of sensors, in which first data objects are produced from the sensor data, wherein each first data object comprises at least a time indication and a location indication of an object detected by at least one of the sensors and comprises a validation function. At least one model object is provided, which represents a parameterization of a trajectory of one of the moving objects having at least one variable parameter. For the first data objects, a correspondence value for an association of each data object with at least one of the provided model objects is then calculated by evaluating the validation function of the data object for the model objects. If none of the correspondence values lies in a predetermined range, an additional model object is provided and the data object is associated with the additional model object. If at least one of the correspondence values lies in the predetermined range, the data object is associated with the provided model object that corresponds to the best correspondence value. For the model object with which the data object was associated, a numerical optimization of a target function is carried out by varying the at least one variable parameter of the model object, wherein the target function is a function of parameter adaptation functions of at least some of the data objects associated with the model object. Finally, the at least one variable parameter of this model object is updated.

IPC 8 full level

G01S 13/72 (2006.01); **G01S 7/40** (2006.01); **G01S 7/41** (2006.01); **G01S 13/87** (2006.01)

CPC (source: EP US)

G01S 13/58 (2013.01 - US); **G01S 13/723** (2013.01 - EP US); **G01S 13/87** (2013.01 - EP US); **G01S 7/40** (2013.01 - EP US); **G01S 7/41** (2013.01 - EP US)

Citation (examination)

- DE 10133945 A1 20030206 - BOSCH GMBH ROBERT [DE]
- DE 102010019147 A1 20111103 - LFK GMBH [DE]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2015000089 A1 20150108; **WO 2015000089 A8 20160211**; CH 708274 A1 20150115; EP 3017319 A1 20160511; EP 3017319 B1 20210825; ES 2896967 T3 20220228; PL 3017319 T3 20220307; US 10656259 B2 20200519; US 2016259043 A1 20160908

DOCDB simple family (application)

CH 2014000091 W 20140701; CH 12022013 A 20130704; EP 14739343 A 20140701; ES 14739343 T 20140701; PL 14739343 T 20140701; US 201414902152 A 20140701